

New Jersey Department of Health and Senior Services
Surveillance and Testing for Influenza A (H5N1) in Humans
Pandemic Alert Period

Protocol for Health Care Providers and Local Health Departments

Keys steps in case screening for avian influenza H5N1

- 1. Identify if the case meets current SURVEILLANCE CRITERIA**
- 2. Ensure appropriate REPORTING of suspect case**
- 3. Ensure appropriate INFECTION CONTROL precautions are implemented**
- 4. Ensure appropriate SPECIMEN COLLECTION AND TRANSPORT**

1.) SURVEILLANCE CRITERIA for avian influenza (H5N1) infection:

Cases must meet the following clinical and epidemiologic criteria to be considered for investigation:

A) Hospitalized patients with:

- History of travel within 10 days of symptom onset to a country with documented H5N1 outbreaks among poultry and/or humans (for a listing of H5N1-affected counties, see the OIE web site at: www.oie.int/eng/en_index.htm and the WHO web site at: http://www.who.int/csr/disease/avian_influenza/en/index.html); **AND**
- Radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness for which an alternate diagnosis has not been established; **AND**
- History of any of the following within 10 days of symptom onset in an H5N1-affected country:
 - Direct contact with domestic poultry (e.g., touching sick or dead chickens or ducks or well-appearing ducks); **OR**
 - Consumption of uncooked poultry or poultry products; **OR**
 - Direct contact with surfaces contaminated with poultry feces; **OR**
 - Close contact (within 3 feet) of a known or suspected human case of H5N1.

B) Hospitalized or ambulatory patients with:

- History of travel within 10 days of symptom onset to a country with documented H5N1 outbreaks among poultry and/or humans (for a listing of H5N1-affected counties, see the OIE web site at: www.oie.int/eng/en_index.htm and the WHO web site at: http://www.who.int/csr/disease/avian_influenza/en/index.html); **AND**

- Documented temperature of >38 °C (>100.4 °F) **AND** one or more of the following (cough, sore throat, shortness of breath); **AND**
- History of any of the following within 10 days of symptom onset in an H5N1-affected country:
 - Direct contact with domestic poultry (e.g. touching sick or dead chickens or ducks or well-appearing ducks); **OR**
 - Consumption of uncooked poultry or poultry products; **OR**
 - Direct contact with surfaces contaminated with poultry feces; **OR**
 - Close contact (within 3 feet) of a known or suspected human case of H5N1.

Providers are reminded to test for other common respiratory pathogens that may be causing illness in the patient (e.g., human influenza, RSV).

Providers are encouraged to admit patients meeting the above criteria to ensure that infection control precautions are enforced and to enhance the ability to monitor the patient's condition. Especially in those cases where avian influenza is strongly suspected (e.g., direct contact with sick or dead birds or a human H5N1 case), the patient should be admitted to the hospital until laboratory test results are available to confirm or rule out H5N1 infection

2. REPORTING and AVIAN INFLUENZA SCREENING FORM

Health Care Providers

Cases meeting the above surveillance criteria should be reported **IMMEDIATELY** to the local health department (LHD) where the patient resides. If LHD personnel are unavailable, health care providers should report the case to the New Jersey Department of Health and Senior Services Communicable Disease Service (NJDHSS CDS) at 609-588-7500, Monday through Friday 8:00 AM - 5:00 PM. On weekends, evenings and holidays, NJDHSS CDS can be reached at (609) 392-2020.

Health care providers will be asked to complete the AVIAN INFLUENZA SCREENING FORM. Completed forms can be faxed to NJDHSS CDS at 609-588-7433. This form will be reviewed by CDS staff who will make the final determination if the case meets surveillance criteria and if the specimen will be approved for testing. No specimen will be accepted by the New Jersey Public Health and Environmental Laboratories (PHEL) until the case has been reviewed by the CDS. (NOTE: If PHEL receives a specimen without CDS review and approval number, PHEL will hold the specimen and contact CDS.) Preliminary and final results will be relayed via telephone as soon as they are available. PHEL will mail a hard copy of the final results when available.

Local Health Departments

When a suspect case of avian influenza is received by the local health department the above protocols for screening, treatment, and collection of lab specimens should be followed. Information should be communicated **IMMEDIATELY** to the NJDHSS CDS at 609-588-7500, Monday through Friday 8:00 AM - 5:00 PM. On weekends, evenings and holidays, NJDHSS CDS can be reached at (609) 392-2020. The health care provider or local health department should complete the Avian Influenza Screening Form. Completed forms should be faxed to the NJDHSS CDS at 609-588-7433.

3. INFECTION CONTROL Precautions and Guidance for Contacts

Infection Control Precautions:

- Hospitalized patients meeting these clinical and epidemiologic criteria above should be placed in a separate room away from other patients and cared for using **standard** and **droplet** infection control precautions pending further evaluation.
- Persons in contact with the suspect case should wear a surgical mask. Gloves should be worn if contact with the patient's blood, body fluids, or respiratory secretions is anticipated, and hand hygiene measures should be followed after all patient contact. Gowns are necessary only if soiling of the provider's clothes with patient's blood, body fluids, or respiratory secretions is anticipated.
- Airborne isolation procedures should be used during procedures with the potential to generate aerosols (e.g., intubation or bronchoscopy). Wearing goggles or face shields for routine contact with suspect avian influenza patients is not necessary unless sprays or splatter of infectious material is likely.

Contact Management:

- Determine if any close contacts (e.g., household, sexual) have fever and respiratory symptoms. If yes, screen the contacts for H5N1 risk exposures:
 - If contacts report H5N1 risk exposures, treat as a suspect case.
 - If no risk exposures, and if not ill enough to be hospitalized based on clinical issues alone, advise that the ill contact stay home and use respiratory hygiene precautions until the case-patient's H5 test result is available.
- Hospital should keep a logbook of all hospital personnel and visitors exposed to the suspect case until the H5 test result is available.
- Healthcare provider should advise asymptomatic close contacts to notify their health care provider if they develop fever or respiratory symptoms (cough, sore throat, or shortness of breath).

4. COLLECTION AND TRANSPORT OF CLINICAL SPECIMENS for Patients Who Meet H5N1 Surveillance Criteria:

No specimen will be accepted by PHEL until the case has been reviewed by the CDS. NOTE: If PHEL receives a specimen without CDS review and approval number, PHEL will hold the specimen and contact CDS.

Persons collecting samples should follow standard and droplet precautions (e.g., wear surgical mask, eye protection, gloves). Airborne precautions (e.g., negative pressure room, N-95 mask) are not necessary when collecting samples. A health care worker may choose to wear an N- 95 respirator; however, surgical masks are considered adequate to prevent infections transmitted via droplets.

The following samples should be obtained (NOTE: Multiple specimen types should be collected and tested to improve diagnostic sensitivity):

A. Nasopharyngeal (NP) and oropharyngeal (OP) swab

- Collect specimen with a sterile Dacron/nylon swab with a non-wooden shaft (Do NOT use calcium alginate swabs or swabs with wooden sticks).
- For NP swab, insert swab into each nostril parallel to the palate and leave in place for a few seconds to absorb secretions. Swab both nostrils.
- For OP swab, swab the posterior pharynx and tonsillar areas, avoiding the tongue.
- Place swab immediately into sterile vials containing 2 ml of viral transport media.
- Label each specimen container with patient's FIRST AND LAST NAME, date of birth, medical record number, date of collection, specimen type and CDS approval number.
- Place specimen vial onto ice or in refrigerator prior to and during transport. Do not freeze.

B. Nasopharyngeal wash/aspirates

- Have the patient sit with head tilted slightly backward.
- Instill 1ml-1.5ml of nonbacteriostatic saline (pH 7.0) into one nostril.
- Insert the tubing into the nostril parallel to the palate.
- Aspirate nasopharyngeal secretions. Repeat this procedure for the other nostril.
- Rinse the catheter into viral transport medium (syringe or bulb) or aspirate viral transport media through catheter into collection trap.
- Label specimen container with patient's FIRST AND LAST NAME, date of birth, medical record number, date of collection, specimen type and CDS approval number.
- Place specimen vial onto ice or in refrigerator prior to and during transport. Do not freeze.

C. Bronchoaveolar lavage or tracheal aspirate

- During bronchoalveolar lavage or tracheal aspirate, use a double-tube system to maximize shielding from oropharyngeal secretions.
- Centrifuge half of the specimen, and fix the cell pellet in formalin. Place the remaining unspun fluid in sterile vials with external caps and internal O-ring

seals. If there is no internal O-ring seal, then seal tightly with the available cap and secure with Parafilm®. Label specimen container with patient's FIRST AND LAST NAME, date of birth, medical record number, date of collection, specimen type and CDS approval number.

- Place specimen vial onto ice or in refrigerator prior to and during transport. Do not freeze.

D. Sputum

- Educate the patient about the difference between sputum and oral secretions.
- Have the patient rinse the mouth with water and then expectorate deep cough sputum directly into a sterile screw-cap sputum collection cup or sterile dry container.
- Label specimen container with patient's FIRST AND LAST NAME, Date of Birth, Medical Record Number, date of collection, specimen type and CDS approval number.
- Place specimen vial onto ice or in refrigerator prior to and during transport. Do not freeze.

E. Acute serum sample

- Collect 5-10 ml whole blood in a serum separator or red top tube. Allow the blood to clot, centrifuge briefly, and collect all resulting sera in vial with external caps and internal O-ring seals. Refrigerate at 4C.
- The minimum amount of serum needed for testing is 200 ml, which can easily be obtained from a 5 ml of whole blood. A minimum of 1 cc of whole blood is needed for testing of pediatric patients. If possible, collect 1 cc in an EDTA tube and in a clotting tube. If only 1 cc can be obtained, use a clotting tube.
- Label specimen container with patient's FIRST AND LAST NAME, date of birth, medical record number, date of collection, specimen type and CDS approval number.

F. All information requested on the SRD-1 form should be completely filled out and included with the specimen shipment.

(<http://www.state.nj.us/health/forms/srd-1.pdf>)

G. In cases of death associated with possible avian influenza infection, autopsy and collection of appropriate post-mortem specimens should be performed.

(<http://www.hhs.gov/pandemicflu/plan/sup2.html#app5>)